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RESULTS OF OAT VARIETY TESTS

1931

On Agronomy Crop Experiment Fields

by

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November, 1931

RESULTS OF OAT VARIETY TESTS

1931

This mimeographed folder has been prepared in order to furnish to those interested an up to date summary of the oat variety tests. Even though certain varieties are no longer included in the tests, the results obtained when they were grown are presented. The yield of Sixty Day has been used on all the fields as the standard or check in making comparisons. The percentage rating of each variety has been calculated using the yield of Sixty Day, grown the same years, as 100 percent. This percentage rating has then been multiplied by the average yield of Sixty Day for the full number of years it has been grown to get the comparable average yield.

According to the data in the last column, some of the varieties have the same comparable average yield. For the most part, this is due to not recording the second decimal. In other words, the varieties are arranged in correct order of their comparable average yield although the difference between many of them is too small to have any significance.

A high yield over a period of years is much to the credit of a variety. Such varieties as Iowar at DeKalb, Gopher at Urbana, and both Iowar and Burt at Alhambra are good choices in these three sections of Illinois.

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ALHAMBRA FIELD: Yields of Varieties of Oats

Rank	Variety	No. of Years Grown	Yield In 1931	Comparable Average Yield
1	Brunker	1	63.0	45.3
2	Columbia	1	61.5	41.5
3	Burt 293	2	49.4	35.5
4	Iowar	9	62.4	35.5
5	Burt	8	----	35.1
6	Gopher	5	44.6	34.8
7	Albion	12	----	33.0
8	Minota	4	36.2	32.9
9	Sixty Day	13	48.1	32.4
10	Iogold	4	50.1	32.3
11	Silvermine	13	29.1	31.2
12	Big Four	12	----	30.9
13	Nova	4	23.8	29.0
14	Kanota	7	55.5	27.1
15	Fowld Hulless	1	36.0*	24.3

* The yield of hulless oats has been raised so as to be comparable with other varieties carrying 30 percent of hull.

URBANA FIELDS: Yields of Varieties of Oats

Rank	Variety	No. of Years Grown	Yield In 1931	Comparable Average Yield
1	Columbia	1	84.8	70.4
2	Iowa D 67	1	81.5	65.5
3	Illinois Progeny 140	1	80.9	64.7
4	Iowa D 4	1	80.4	62.3
5	Brunker	2	80.0	62.2
6	Gopher	7	76.2	61.7
7	Burt 293	2	77.2	61.3
8	Kanota	9	77.9	60.8
9	Albion (Iowa 103)	15	-----	60.7
10	Nebraska 21	4	76.8	60.4
11	Markton	4	56.6	59.0
12	Minota	7	60.6	58.9
13	Richland (Iowa 105)	16	-----	58.6
14	State Pride	10	69.6	58.6
15	Iogold	5	77.7	58.5
16	Burt	11	-----	58.5
17	Iowar	10	77.6	58.3
18	Cornellian	8	-----	57.7
19	Illinois Hulless	8	53.5*	57.7
20	Iogren	8	-----	57.4
21	Big Four	16	-----	57.3
22	Fowld Hulless	4	55.3*	57.1
23	Anthony	4	52.9	57.1

25	Sixty Day	26	70.3	57.0
26	Swedish Select	14	----	57.0
27	Texas Red	14	----	56.5
28	Kherson	15	----	56.5
29	Sixty Day 13-304	6	----	56.4
30	Wayne	2	64.1	56.4
31	Great American	13	----	55.5
32	Miami	6	----	55.4
33	Silvermine 6-403	5	----	55.2
34	Wisconsin Wonder	10	----	55.2
35	Victory	9	----	55.0
36	Bryant Silver Plume	10	----	55.0
37	Nova	8	48.8	54.6
38	Silvermine	22	55.6	54.5
39	White Bonanza	19	----	54.3
40	Scottish Chief	6	----	53.9
41	Irish Victor	20	----	53.8
42	American Banner	22	----	52.9
43	Iowa D 77	1	66.7	52.9
44	Minnesota 6	19	----	52.9
45	Schoenen	16	----	52.5
46	Siberian	22	----	52.3
47	Silver	7	----	51.8
48	Garton 5	7	----	51.5

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(continued)

Rank	Variety	No. of Years Grown	Yield In 1931	Comparable Average Yield
49	Sixty Day (Selected)	4	-----	51.4
50	Naesgaard	6	-----	51.2
51	President	8	-----	51.1
52	White Russian	6	-----	50.9
53	Lincoln	18	-----	50.6
54	Early Champion	10	-----	50.4
55	Danish White	16	-----	50.3
56	Garton Victor	4	-----	48.7
57	Mammoth Cluster	6	-----	47.5
58	Crown	1	-----	45.8
59	Great Avalanche	4	34.7	45.7
60	Golden Rain	2	-----	40.9
61	Black Tartarian	7	-----	40.8
62	Iowa D 69	1	52.1	39.7
63	Victory (Riley)	1	48.2	37.8
64	Iowa D 102	1	46.6	36.0

*The yield of hulless varieties has been raised so as to be comparable with other varieties carrying 30 percent of hull.

DEKALB FIELD: Yields of Varieties of Oats

Rank	Variety	No. of Years Grown	Yield In 1931	Comparable Average Yield
1	Iowar	11	56.4	72.0
2	Albion (Iowa 103)	13	----	68.6
3	Richland (Iowa 105)	13	----	68.4
4	Kanota	8	47.5	68.0
5	Gopher	4	48.2	67.5
6	Iogren	9	42.1	66.8
7	Iogold	4	39.5	65.3
8	State Pride	11	47.7	65.2
9	Nova	7	29.4	65.0
10	Minota	4	40.1	65.0
11	Silvermine	11	34.0	63.8
12	Anthony	3	37.0	63.2
13	Sixty Day	19	55.3	62.9
14	Iowa D 77	1	54.9	62.4
15	Burt 293	2	45.3	60.4
16	Golden Silvermine	2	37.3	59.6
17	Victory	2	18.8	54.1
18	Iowa D 69	1	38.8	44.1

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RESULTS OF OAT VARIETY TESTS

on

Agronomy Crop Experiment Fields

Summarized to

1933

by

Geo. H. Dungan
W. L. Burlison
C. A. Van Doren

Illinois Agricultural Experiment Station
University of Illinois
Urbana
September, 1933

RESULTS OF OAT VARIETY TESTS
1933

Oat yields in 1933 were below average, especially on the Alhambra Field. The low yields were mainly due to late planting, altho dry, hot weather at filling time had an important deleterious effect on yields. It is believed, however, that a test of varieties under unfavorable conditions is just as valuable, perhaps more so, than under ideal circumstances. Oats that make a good yield record in a poor environment evidently possess merit.

Best Yielding Varieties

The highest yielding variety at Urbana in 1933 was Columbia, followed by Brunker, and Burt (Nebr. 293). Considering only those that have been grown for three or more years the leading varieties at Urbana are Columbia, Burt (Nebr. 293), and Gopher.

The leading varieties at DeKalb are Iowar, Albion, Richland, Kanota and Gopher. Fowld Hulless and Columbia have made a good record at DeKalb during the two years they have been grown.

At Alhambra the best varieties include Brunker, Columbia, Burt (Nebr. 293) and Iowar. Brunker proved to be exceptionally capable of coping with the poor season this year.

Hulless Oats

Hulless oats have the reputation of being very sensitive to seasonal influences. Under favorable conditions they yield well, but under adverse conditions they yield very poorly. At DeKalb, where oats did the best, Fowld Hulless was the highest in yield and at Alhambra, where oats were very poor this variety was the lowest, making only 4.3 bushels per acre. At Urbana, hulless oats have been tested for a long enough period to indicate that they are no better than the average of other varieties in yielding ability. It is believed, however, that for those desiring to grow oats primarily for poultry and swine feeding, hulless oats are a good choice.

The yield of hulless oats has been calculated on the basis of 22.4 pounds to the bushel. This figure is based on the assumption that the regular hulled varieties carry 30 percent of hull. This allowance for hull is known to be somewhat high since determinations show that the percentage of hull is more frequently under 30 than over. Then, too, some of the kernels of hulless oats retain their hull which makes this method of calculation favorable to the good showing of the hulless varieties.

Method of Calculating Yields

In obtaining the comparable average yields of the different varieties the production of Sixty Day was used on all the fields as the standard or check. The percentage rating of each variety was calculated using the yield of Sixty Day, grown the same years, as 100 percent. This percentage rating was multiplied by the average of Sixty Day for the full number of years it had been grown. The product was considered to be the comparable average yield.

ALHAMBRA FIELD: Yields of Varieties of Oats

Rank	Variety	No. of years grown	Yield in 1933 (Bu.per A)	Comparable ave. yield (Bu.per A)
1	Brunker	3	24.3	43.39
2	Columbia	3	15.9	41.61
3	Franklin	1	10.4	41.35
4	Burt (Nebraska 293)	4	16.1	37.70
5	Illinois Progeny 140	2	14.9	36.96
6	Illinois Progeny 137	2	13.0	35.89
7	Iowar	8	....	35.67
8	Burt	8	....	35.24
9	Gopher	5	....	34.91
10	Albion (Iowa 103)	12	....	33.12
11	Minota	4	....	33.06
12	Sixty Day	15	8.2	32.60
13	Iogold	4	....	32.43
14	Silvermine	13	....	31.39
15	Big Four	12	....	31.08
16	Nova	4	....	29.10
17	Kanota	7	....	27.34
18	Fowld Hulless	3	4.3*	26.75*
	Average		13.4	

*Yield of hulless oats as figured at 22.4 lbs.to the bu.

URBANA FIELD: Yields of Varieties of Oats

Rank	Variety	No. of years grown	Yield in 1933	Comparable ave. yield
1	Columbia	3	63.0	68.87
2	Iowa D 67	1	....	68.43
3	Iowa D 4	1	....	65.07
4	Burt (Nebraska 293)	4	60.8	64.54
5	Gopher	9	54.8	64.18
6	Franklin	2	57.7	63.82
7	Kanota	9	....	63.50
8	Albion (Iowa 103)	15	....	63.44
9	Brunker	4	61.1	63.05
10	Illinois Progeny 140	3	50.6	62.64
11	Nebraska 21	6	53.3	61.79
12	Minota	7	....	61.49
13	Burt (Nebraska 517)	2	55.7	61.27
14	Richland (Iowa 105)	16	....	61.26
15	State Pride (Wisconsin No. 7)	10	....	61.24
16	Iogold	5	....	61.17
17	Burt	11	....	61.12
18	Iowar	10	....	60.96
19	Cornellian	8	....	60.27
20	Iogren	8	....	60.02
21	Big Four	16	....	59.90
22	Markton	5	....	59.72
23	Sixty Day	28	50.1	59.60

25	Fowld Hulless	5	49.5*	59.20*
26	Texas Red	14	....	59.01
27	Kherson	15	....	58.98
28	Sixty Day 13-304	6	....	58.95
29	Great American	13	....	58.00
30	Miami	6	....	57.88
31	Silvermine 6-403	5	....	57.70
32	Wisconsin Wonder (Ped. No. 1)	10	....	57.67
33	Victory	9	....	57.49
34	Illinois Hulless	10	35.4*	57.47*
35	Anthony	5	....	57.45
36	Bryant Silver Plume	10	....	57.42
37	Wayne	4	46.6	57.28
38	Illinois Progeny 137	3	49.2	57.23
39	Nova	8	....	57.07
40	Silvermine	22	....	56.93
41	White Bonanza	20	....	56.70
42	Scottish Chief	6	....	56.28
43	Irish Victor	22	....	56.24
44	Illinois Progeny 105	1	47.1	56.03
45	Golden Silvermine	1	46.5	55.31
46	American Banner	22	....	55.28
47	Iowa D 77	1	....	55.24

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(continued)

Rank	Variety	No. of years grown	Yield in 1933	Comparable ave. yield
48	Minnesota No. 6	19	....	55.24
49	Schoenen	17	....	54.83
50	Siberian	22	....	54.64
51	Silver	6	....	54.08
52	Garton 5	7	....	53.84
53	Sixty Day (selected)	4	....	53.75
54	Naesgaard	6	....	53.54
55	President	8	....	53.37
56	White Russian	6	....	53.22
57	Lincoln	19	....	52.85
58	Early Champion	10	....	52.66
59	Danish White	16	....	52.56
60	Garton Victor	4	....	50.84
61	Mammoth Cluster	6	....	49.63
62	Crown	1	....	47.86
63	Great Avalanche	5	....	46.43
64	Golden Rain	3	....	43.08
65	Black Tartarian	9	....	42.60
66	Iowa D 69	1	....	41.49
67	Victory (Riley)	1	....	39.51
68	Iowa D 102	1	....	37.62
	Average		52.1	

*Yield of hulless oats was figured at 22.4 pounds to the bushel.

DEKALB FIELD: Yields of Varieties of Oats

Rank	Variety	No. of Years Grown	Yield in 1933	Comparable ave. yield
1	Fowld Hulless	2	60.4*	75.18*
2	Iowar	11	....	71.81
3	Columbia	2	59.1	70.13
4	Albion (Iowa 103)	13	....	68.44
5	Richland (Iowa 105)	13	....	68.25
6	Kanota	8	....	67.84
7	Gopher	4	....	67.39
8	Iogren	9	....	66.63
9	Iogold	4	....	65.13
10	State Pride (Wis. No. 7)	11	....	65.05
11	Wayne	2	50.4	65.02
12	Nova	7	....	64.90
13	Minota	4	....	64.85
14	Franklin	2	56.7	63.64
15	Silvermine	11	....	63.62
16	Anthony	3	....	63.06
17	Sixty Day	21	50.1	62.72
18	Iowa D 77	1	....	62.27
19	Burt (Nebraska 293)	4	60.4	61.21
20	Golden Silvermine	4	52.0	59.48
21	Illinois Progeny 137	2	44.1	56.03
22	Victory (Riley)	2	....	53.98
23	Iowa D 69	1	....	44.00
	Average		54.2	

*Yield of hulless oats was figured at 22.4 pounds to the bushel.

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Agronomy Crop Experiment Fields

Summarized to Include

1934

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Geo. H. Dungan
W. L. Burlison
C. A. Van Doren

Illinois Agricultural Experiment Station
University of Illinois
Urbana

February, 1935

RESULTS OF OAT VARIETY TESTS

1934

Oat yields in 1934 were below average, especially on the Urbana and DeKalb Fields. The low yields on the DeKalb and Alhambra Fields were mainly due to dry, hot weather, while on the Urbana Field chinch bugs damaged the crop as well as dry weather. At Alhambra the red early maturing varieties were first in yield. At Urbana and DeKalb, however, the later varieties were at the top. This has occurred in former years, but seldom have the late or medium maturing varieties exceeded Sixty Day, the standard variety, by as great a margin as in 1934.

Best Yielding Varieties

The highest yielding varieties at Alhambra, are Brunker, Columbia, Franklin, Burt (Nebr. 293), Illinois 140 and Illinois 137. Of these the first four are red oats. Brunker was developed at the Dry Land Experiment Station, Akron, Colorado which may account for its adaptation to dry conditions. Columbia is a product of the Missouri Agricultural Experiment.

At Urbana the varieties that have been grown for three years or more are Columbia, Burt (Nebr. 293), Franklin, Gopher, Illinois 140, Burt (Nebr. 517), Kanota, Albion (Iowa 103) and Brunker.

The ten leading varieties at DeKalb are Fowld Hulless, Iowar, Albion (Iowa 103), Richland (Iowa 105), Kanota, Columbia, Wayne, Gopher, Iogren and State Pride. Of these all are early varieties except Fowld Hulless, Wayne and Iogren which vary from medium early to medium late.

Hulless Oats

Hulless oats have the reputation of being very sensitive to seasonal influences. Under favorable conditions they yield well, but under adverse conditions they yield very poorly. It is believed, however, that for those desiring to grow oats primarily for poultry and swine feeding, hulless oats are a good choice.

The yield of hulless oats has been calculated on the basis of 22.4 pounds to the bushel. This figure is based on the assumption that the regular varieties carry 30 percent of hull. This allowance for hull is, perhaps, somewhat high since determinations show that the percentage of hull is more frequently under 30 than over. Then, too, some of the kernels of hulless oats retain their hull which makes this method of calculation favorable to the good showing of the hulless varieties.

Method of Calculating Yields

In obtaining the comparable average yields of the different varieties the production of Sixty Day (Kherson) was used on all the fields as the standard or check. The percentage rating of each variety was calculated using the yield of Sixty Day, grown the same years, as 100 percent. This percentage rating was multiplied by the average yield of Sixty Day for the full number of years it had been grown. The product was considered to be the comparable average yield.

ALHAMBRA FIELD: Yield of Varieties of Oats

Rank	Variety	No. of years grown	Yield (Bu. per A) 1932	1933	1934	Comparable ave. yield (Bu. per A)
1	Brunker	4	66.3	24.3	38.8	44.6
2	Columbia	4	69.9	15.9	34.0	42.1
3	Franklin	2	....	10.4	29.6	41.8
4	Burt (Nebraska 293)	5	68.1	16.1	36.2	38.7
5	Illinois Progeny 140	3	61.4	14.9	28.6	37.4
6	Illinois Progeny 137	3	61.1	13.0	30.0	37.1
7	Iowar	8	....	....	....	35.0
8	Burt	8	....	....	....	34.6
9	Gopher	5	62.8	....	....	34.2
10	Albion (Iowa 103)	12	....	....	....	32.5
11	Minota	4	....	....	....	32.4
12	Sixty Day	16	59.1	8.2	22.4	32.0
13	Iogold	4	....	....	....	31.8
14	Silvermine	13	....	....	....	31.1
15	Big Four	12	....	....	....	30.5
16	Nova	4	....	....	....	28.5
17	Kanota	7	....	....	....	26.8
18	Fowld Hulless	4	54.4*	4.3*	12.5*	25.0*

*Yield of hulless oats was figured at 22.4 lbs. to the bu.

URBANA FIELD: Yields of Varieties of Oats

Rank	Variety	No. of years grown	Yield (Bu. per A) 1932	1933	1934	Comparable ave. yield (Bu. per A)
1	Patterson	1	....	....	34.4	100.54
2	Keystone	1	....	....	34.3	100.25
3	Columbia	4	80.2	63.0	29.0	68.51
4	Golden Silvermine	2	....	46.5	36.1	68.38
5	Iowa D 67	1	....	....	....	66.44
6	Burt (Nebraska 293)	5	79.6	60.8	28.3	64.10
7	Franklin	3	80.0	57.7	26.3	63.95
8	Gopher	10	81.5	54.8	31.0	63.24
9	Iowa D 4	1	....	....	....	63.18
10	Illinois Progeny 140	4	78.6	50.6	27.0	62.45
11	Burt (Nebraska 517)	3	76.5	55.7	26.4	61.85
12	Kanota	9	....	....	....	61.66
13	Albion	15	....	....	....	61.60
14	Brunker	5	70.8	61.1	17.5	60.50
15	Nebraska 21	6	73.9	53.3	....	60.00
16	Minota	7	....	....	....	59.70
17	Richland	16	....	....	....	59.48
18	State Pride	10	....	....	....	59.46
19	Iogold	5	....	....	....	59.39
20	Burt	11	....	....	....	59.35
21	Iowar	10	....	....	....	59.19
22	Wayne	5	71.4	46.6	34.3	58.73

24	Iogren	8	....	....	....	58.28
25	Big Four	16	....	....	....	58.16
26	Markton	5	70.0	....	....	57.99
27	Sixty Day	29	78.5	50.1	19.8	57.87
28	Swedish Select	14	....	....	....	57.80
29	Texas Red	14	....	....	....	57.30
30	Kherson	15	....	....	....	57.27
31	Sixty Day 13-304	7	....	....	....	57.24
32	Fowld Hulless	7	75.9*	49.5*	15.7*	56.94*
33	Illinois Progeny 105	2	....	47.1	21.1	56.46
34	Great American	13	....	....	....	56.31
35	Miami	6	....	....	....	56.20
36	Silvermine 6-403	5	....	....	....	56.03
37	Wis. Wonder (Pedigree #1)	10	....	....	....	56.00
38	Victory	9	....	....	....	55.82
39	Illinois Hulless	10	64.0*	35.4*	....	55.80*
40	Anthony	5	65.6	....	....	55.78
41	Bryant Silver Plume	10	....	....	....	55.75
42	Illinois Progeny 137	4	71.5	49.2	19.1	55.60
43	Nova	8	....	....	....	55.41
44	Silvermine	22	....	....	....	55.30
45	White Bonanza	19	....	....	....	55.05
46	Scottish Chief	6	....	....	....	54.65
47	Irish Victor	20	....	....	....	54.61
48	American Banner	22	....	....	....	53.67

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(continued)

Rank	Variety	No. of years grown	Yield (Bu. per A) 1932	1933	1934	Comparable ave. yield (Bu. per A)
49	Iowa D 77	1	....	....	....	53.64
50	Minnesota 6	19	....	....	....	53.63
51	Schoenen	16	....	....	....	53.23
52	Siberian	22	....	....	....	53.11
53	Silver	6	....	....	....	52.51
54	Garton 5	7	....	....	....	52.28
55	Sixty Day	4	....	....	....	52.21
56	Naesgaard	6	....	....	....	52.00
57	President	8	....	....	....	51.82
58	White Russian	6	....	....	....	51.68
59	Lincoln	18	....	....	....	51.31
60	Early Champion	10	....	....	....	51.13
61	Danish White	16	....	....	....	51.04
62	Garton Victor	4	....	....	....	49.37
63	Mammoth Cluster	6	....	....	....	48.21
64	Crown	1	....	....	....	46.47
65	Great Avalanche	5	55.1	....	....	45.11
66	Golden Rain	3	....	....	....	41.83
67	Black Tartarian	7	....	....	....	41.37
68	Iowa D 69	1	....	....	....	40.28
69	Victory	1	....	....	....	38.41
70	Iowa D 102	1	....	....	....	36.53

*Yield of hulless oats was figured at 22.4 pounds to the bushel.

DEKALB FIELD: Yields of Varieties of Oats

Rank	Variety	No. of years grown	Yield (Bu. per A) 1932	1933	1934	Comparable ave. yield (Bu. per A)
1	Fowld Hulless	3	86.8*	60.4*	14.4*	78.33*
2	Iowar	11	....	....	....	74.70
3	Albion (Iowa 103)	13	....	....	....	71.21
4	Richland (Iowa 105)	13	....	....	....	70.99
5	Kanota	8	....	....	....	70.60
6	Columbia	3	78.2	59.1	8.3	70.57
7	Wayne	3	76.9	50.4	18.0	70.43
8	Gopher	4	....	....	....	70.01
9	Iogren	9	....	....	....	69.41
10	State Pride	11	....	....	....	67.71
11	Minota	4	....	....	....	67.51
12	Nova	7	....	....	....	67.50
13	Iogold	4	....	....	....	67.75
14	Franklin	3	67.9	56.7	13.3	66.84
15	Silvermine	11	....	....	....	66.21
16	Anthony	3	....	....	....	65.61
17	Sixty Day	22	72.7	50.1	11.8	65.24
18	Iowa D 77	1	....	....	....	64.81
19	Burt (Nebraska 293)	5	71.2	60.4	12.2	63.82
20	Golden Silvermine	5	66.7	52.0	18.9	63.73
21	Illinois Progeny 137	3	65.6	44.1	7.8	58.26
22	Victory	2	....	....	....	56.20
23	Iowa D 69	1	....	....	....	45.77

*Yield of hulless oats was figures at 22.4 pounds to the bushel.

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RESULTS OF OAT VARIETY TESTS

on

Agronomy Crop Experiment Fields

Summarized to Include

1935

by

Geo. H. Dungan
W. L. Burlison

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Extension Service in Agriculture and Home Economics
Urbana, Illinois
January, 1936

RESULTS OF OAT VARIETY TESTS - 1935

Oat yields in 1935 were good on the Urbana field, fair on the DeKalb field, and poor on the Alhambra field. The low yields at Alhambra may be attributed to late seeding and heavy rains for which drainage was inadequate.

The season was favorable for the early maturing varieties on all three fields, the highest yielding one at Urbana being Kherson (Sixty Day); at DeKalb, Gopher; and at Alhambra, Burt (Nebr. 293).

Best Yielding Varieties

The highest yielding varieties at Alhambra, considering those that have been included in the tests for four years or longer, are Brunker, Columbia, Burt (Nebr. 293), Illinois 137, and Illinois 140. Of these, the first 3 are varieties having brown or light tan-colored kernels. The other 2 are the result of selections from Kherson.

At Urbana the leading varieties that have been grown for a minimum of 5 years include Columbia, Burt (Nebr. 293), Kanota, Albion, Gopher, and Illinois 140, all early varieties.

The oats ranking at the top on the DeKalb field are Iowar, Albion, Richland, Kanota, Iogran, and Gopher. These are all early maturing oats, except Iogren which is medium early.

Hull-less Oats

Hull-less oats have the reputation of being very sensitive to seasonal influences. Under favorable environment they produce well, but under adverse conditions they yield very poorly. It is believed, however, that for those desiring to grow oats for poultry and swine feeding, hull-less oats are a good choice. It should be remembered that hull-less oats tend to revert to the hulled type and for that reason it is difficult to keep a pure lot of seed.

The yield of hull-less oats has been calculated on the basis of 22.4 pounds to the bushel. This figure is

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based on the assumption that the regular varieties carry 30 percent of hull. This allowance for hull is, perhaps, somewhat high since determinations show that the percentage of hull is more frequently under 30 than over. Then, too, since some of the kernels of hull-less oats retain their hull, this method of calculation is favorable to the good showing of the hull-less varieties.

Method of Calculating Yields

In obtaining the comparable average yields of the different varieties the production of Kherson (Sixty Day) was used on all the fields as the standard or check. The percentage rating of each variety was calculated using the yield of Kherson, grown the same years, as 100 percent. This percentage rating was multiplied by the average yield of Kherson for the full number of years it had been grown. The product was considered to be the comparable average yield.

ALHAMBRA FIELD: Yields of Varieties of Oats

Rank	Variety	No. of years grown	Yield Bu. per acre 1933	1934	1935	Comp. ave. yield Bu./A
1	Brunker	5	24.3	38.8	19.3	42.67
2	Columbia	5	15.9	34.0	18.1	40.19
3	Burt (Nebr. 293)	6	16.1	36.2	22.0	37.90
4	Ill. 137	4	13.0	30.0	19.3	36.17
5	Ill. 140	4	14.9	28.6	16.7	35.64
6	Franklin	3	10.4	29.6	13.2	35.28
7	Iowar	8	....	....	....	33.97
8	Burt	8	....	....	....	33.55
9	Gopher	5	....	....	....	33.24
10	Albion (Iowa 103)	12	....	....	....	31.53
11	Minota	4	....	....	....	31.48
12	Kherson (60 Day)	17	8.2	22.4	16.2	31.04
13	Iogold	4	....	....	....	30.88
14	Silvermine	13	....	....	....	29.89
15	Big Four	12	....	....	....	29.59
16	Nova	4	....	....	....	27.71
17	Kanota	7	....	....	....	26.04
18	Fowld Hull-less	5	4.3	12.5	8.6	23.34
	Average		13.4	29.0	16.7	32.78

URBANA FIELD: Yields of Varieties of Oats

Rank	Variety	No. of years grown	Yield Bu. per acre 1933	1934	1935	Comp. ave. yield Bu./A
1	Iowa D 67	1	....	....	....	67.45
2	Columbia	5	63.0	29.0	68.3	65.65
3	Burt (Nebr. 293)	5	60.8	28.3	....	65.07
4	Iowa D 4	1	....	....	....	64.14
5	Kanota	9	....	....	....	62.60
6	Albion (Iowa 103)	15	....	....	....	62.53
7	Gopher	11	54.8	31.0	57.7	62.21
8	Illinois 140 —	5	50.6	27.0	73.3	62.09
9	Nebraska 21	6	53.3	....	....	60.91
10	Minota	7	....	....	....	60.61
11	Burt (Nebr. 517)	4	55.7	26.4	70.7	60.57
12	Richland (Iowa 105)	16	....	....	....	60.38
13	State Pride	10	....	....	....	60.37
14	Iogold	5	....	....	....	60.30
15	Brunker	6	61.1	17.5	70.5	60.27
16	Burt	11	....	....	....	60.25
17	Iowar	10	....	....	....	60.09
18	Cornellian	8	....	....	....	59.41
19	Iogren	8	....	....	....	59.16
20	Big Four	16	....	....	....	59.04
21	Markton	5	....	....	....	58.87
22	Kherson (60 Day)	30	50.1	19.8	74.0	58.75
23	Swedish Select	14	....	....	....	58.68
24	Texas Red	14	....	....	....	58.17
25	Sixty Day 13-304	7	....	....	....	58.11
26	Franklin	4	57.7	26.3	53.7	57.51
27	Great American	13	....	....	....	57.17
28	Miami	7	....	....	....	57.06
29	Silvermine 6-403	5	....	....	....	56.88
30	Wis. Wonder (Ped.1)	10	....	....	....	56.85
31	Victory	9	....	....	....	56.67
32	Fowld Hull-less	8	49.5	15.7	63.2	56.66
33	Ill. Hull-less	10	35.4	....	....	56.65
34	Anthony	5	....	....	....	56.63

URBANA FIELD: Yields of Varieties of Oats
(Cont'd.)

Rank	Variety	No. of years grown	Yield Bu. per acre 1933	1934	1935	Comp. ave. yield Bu./A
35	Bryant Silver Plume	10	....	....	....	56.60
36	Illinois 137	4	49.2	19.1	....	56.44
37	Nova	8	....	....	....	56.25
38	Silvermine	22	....	....	....	56.12
39	White Bonanza	19	....	....	....	55.89
40	Scottish Chief	6	....	....	....	55.48
41	Irish Victor	20	....	....	....	55.44
42	American Banner	22	....	....	....	54.49
43	Iowa D 77	1	....	....	....	54.46
44	Minnesota 6	19	....	....	....	54.44
45	Wayne	6	46.6	34.3	41.6	54.13
46	Schoenen	16	....	....	....	54.04
47	Siberian	22	....	....	....	53.36
48	Silver	6	....	....	....	53.30
49	Keystone	2	....	34.3	50.7	53.24
50	Garton 5	7	....	....	....	53.07
51	Naesgaard	6	....	....	....	52.78
52	President	8	....	....	....	52.60
53	White Russian	6	....	....	....	52.46
54	Lincoln	18	....	....	....	52.09
55	Early Champion	10	....	....	....	51.91
56	Danish White	16	....	....	....	51.81
57	Illinois 105	3	47.1	21.1	57.6	51.36
58	Golden Silvermine	3	46.5	36.1	42.9	51.24
59	Garton Victor	4	....	....	....	50.12
60	Patterson	2	....	34.4	44.6	49.48
61	Mammoth Cluster	6	....	....	....	48.92
62	Crown	1	....	....	....	47.18
63	Great Avalanche	5	....	....	....	45.77
64	Golden Rain	3	....	....	....	42.46
65	Black Tartarian	7	....	....	....	41.99
66	Iowa D 69	1	....	....	....	40.90
67	Victory (Riley)	1	....	....	....	38.95
68	Iowa D 102	1	....	....	....	37.08
	Average		52.1	26.7	59.1	55.49

DE KALB FIELD: Yields of Varieties of Oats

Rank	Variety	No.of years grown	Yield Bu. per acre 1933	1934	1935	Comp. ave. yield Bu./A
1	Iowar	11	....	....	....	69.55
2	Albion (Iowa 103)	13	....	....	....	66.28
3	Richland (Iowa 105)	13	....	....	....	66.10
4	Kanota	8	....	....	....	65.70
5	Iogren	9	....	....	....	64.57
6	Gopher	5	....	....	69.2	64.51
7	Iogold	4	....	....	....	63.07
8	State Pride	11	....	....	....	63.00
9	Nova	7	....	....	....	62.85
10	Minota	4	....	....	....	62.81
11	Columbia	4	59.1	8.3	61.4	62.06
12	Silvermine	11	....	....	....	61.61
13	Fowld Hull-less	4	60.4	14.4	43.4	61.46
14	Anthony	3	....	....	....	61.07
15	Kherson (60 Day)	23	50.1	11.8	68.0	60.74
16	Iowa D 77	1	....	....	....	60.30
17	Wayne	4	50.4	18.0	54.8	59.99
18	Illinois 140	1	....	....	66.5	59.05
19	Burt (Nebr. 293)	6	60.4	12.2	55.5	57.50
20	Golden Silvermine	6	52.0	18.9	50.0	56.38
21	Franklin	4	56.7	13.3	48.4	55.85
22	Keystone	1	....	....	59.1	52.48
23	Victory	2	....	....	....	52.28
24	Illinois 137	4	44.1	7.8	50.4	50.34
25	Patterson	1	....	....	52.8	46.89
26	Iowa D 69	1	....	....	....	42.62
	Average		54.2	13.1	56.6	59.58

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Extension Service in Agriculture and Home Economics
University of Illinois, Urbana

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RESULTS OF OAT VARIETY TESTS

on

Agronomy Crop Experiment Fields

Summarized to Include

1936

by

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W. L. Burlison
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Urbana, Illinois
October, 1936

Results of Oat Variety Tests to 1936

Oat yields in 1936 were good on the DeKalb and Urbana fields, and a failure on the Alhambra field. The loss of the crop at Alhambra may be attributed to heavy rains for which drainage was inadequate. The season was favorable for the early-maturing varieties on the DeKalb and Urbana fields, the highest-yielding one on both fields being Columbia.

Best-Yielding Varieties

The highest-yielding varieties at DeKalb, considering those that have been included in the tests for five years or longer, are Iowar, Albion, Richland, Kanota, and Gopher. Of these, the first three and the fifth are varieties that have been developed as selections from Kherson. At Urbana the leading varieties that have been grown for a minimum of five years include Columbia, Burt (Nebr. 293), Kanota, Albion, Gopher, and Illinois 140, all early varieties. The oats ranking at the top on the Alhambra field are Brunker, Columbia, Burt (Nebr. 293), Illinois 137, and Illinois 140. These are all early-maturing oats, and the first three are reddish-gray varieties.

Hull-less Oats

Hull-less oats have the reputation of being very sensitive to seasonal influences. Under favorable environment they produce well, but under adverse conditions they yield very poorly. It is believed, however, that for those desiring to grow oats for poultry and swine feeding, hull-less oats are a good choice. It should be remembered that hull-less oats tend to revert to the hulled type and for that reason, it is difficult to keep a pure lot of seed.

The yield of hull-less oats has been calculated on the basis of 22.4 pounds to the bushel. This figure is based on the assumption that the regular varieties carry 30 percent of hull. This allowance for hull is, perhaps, somewhat high since determinations show that the percentage of hull is more frequently under 30 than over. Then, too, since some of the kernels of hull-less oats retain their hull, this method of calculation is favorable to the good showing of the hull-less varieties.

Method of Calculating Yields

In obtaining the comparable average yields of the different varieties the production of Kherson (Sixty Day) was used on all the fields as the standard or check. The percentage rating of each variety was calculated using the yield of Kherson, grown the same years, as 100 percent. This percentage rating was multiplied by the average yield of Kherson for the full number of years it had been grown. The product was considered to be the comparable average yield.

DEKALB FIELD: Yields of Varieties of Oats

Rank	Variety	Number years grown	Bushel yields secured in 1934	1935	1936	Average comparable yield(bu.)
1	Iowar	11	....	....	....	69.90
2	Albion (Iowa 103)	13	....	....	....	66.62
3	Richland(Iowa 105)	13	....	....	....	66.43
4	Kanota	8	....	....	....	66.03
5	Gopher	6	....	69.2	76.1	65.40
6	Iogren	9	....	....	....	64.90
7	Columbia	5	8.3	61.4	78.6	64.41
8	Iogold	4	....	....	....	63.39
9	State Pride	11	....	....	....	63.32
10	Nova	7	....	....	....	63.17
11	Minota	4	....	....	....	63.13
12	Fowld Hull-less	5	14.4	43.4	72.1	62.49
13	Silvermine	11	....	....	....	61.93
14	Anthony	3	....	....	....	61.39
15	Wayne	5	18.0	54.8	70.8	61.09
16	Kherson (Sixty Day)	24	11.8	68.0	68.1	61.05
17	Iowa D 77	1	....	....	....	60.61
18	Golden Silvermine	7	18.9	50.0	70.9	57.83
19	Burt (Nebr. 293)	6	12.2	55.5	....	57.80
20	Franklin	5	13.3	48.4	57.5	56.14
21	Illinois 140	2	....	66.5	57.5	55.46
22	Victory	2	....	....	....	52.55
23	Illinois 137	5	7.8	50.4	61.0	51.62
24	Keystone	2	....	59.1	50.1	48.84
25	Iowa 444	1	....	....	53.5	47.96
26	Patterson	2	....	52.8	46.6	44.46
27	Iowa D 69	1	....	....	....	42.83

URBANA FIELD: Yields of Varieties of Oats

Rank	Variety	Number years grown	Bushel yields secured in 1934	1935	1936	Average comparable yield(bu.)
1	Illinois 30-2088	1	....	....	67.1	67.71
2	Iowa D 67	1	....	....	....	67.43
3	Columbia	6	29.0	68.3	70.0	66.46
4	Burt (Nebr. 293)	6	28.3	....	60.1	64.29
5	Iowa D 4	1	....	....	....	64.12
6	Kanota	9	....	....	....	62.58
7	Albion	15	....	....	....	62.51
8	Gopher	11	31.0	57.7	....	62.19
9	Illinois 140	6	27.0	73.3	60.3	61.87
10	Burt (Nebr. 517)	5	26.4	70.7	64.1	61.41
11	Brunker	7	17.5	70.5	65.4	61.07
12	Nebraska 21	6	....	....	....	60.89
13	Minota	7	....	....	....	60.59
14	Richland	16	....	....	....	60.36
15	State Pride	10	....	....	....	60.35
16	Iogold	5	....	....	....	60.28
17	Burt	11	....	....	....	60.23
18	Iowar	10	....	....	....	60.07
19	Cornellian	8	....	....	....	59.39
20	Iogren	8	....	....	....	59.14
21	Big Four	16	....	....	....	59.02
22	Markton	5	....	....	....	58.85
23	Kherson (Sixty Day)	30	19.8	74.0	58.2	58.73
24	Swedish Select	14	....	....	....	58.66
25	Texas Red	14	....	....	....	58.15
26	Sixty Day 13-304	7	....	....	....	58.09
27	Fowld Hull-less	9	15.7	63.2	64.2	57.50
28	Great American	13	....	....	....	57.15
29	Miami	7	....	....	....	57.04
30	Silvermine 6-403	5	....	....	....	56.86
31	Wis. Wonder	10	....	....	....	56.83
32	Victory	9	....	....	....	56.65
33	Illinois Hull-less	10	....	....	....	56.63
34	Anthony	5	....	....	....	56.61
35	Bryant Silver Plume	10	....	....	....	56.58
36	Nova	8	....	....	....	56.23

URBANA FIELD: Yields of Varieties of Oats (Continued)

Rank	Variety	Number years grown	Bushel yields secured in 1934	1935	1936	Average comparable yield(bu.)
37	Silvermine	22	....	....	....	56.10
38	White Bonanza	19	....	....	....	55.87
39	Scottish Chief	6	....	....	....	55.46
40	Irish Victor	20	....	....	....	55.42
41	Illinois 137	4	19.1	....	....	55.01
42	American Banner	22	....	....	....	54.47
43	Iowa D 77	1	....	....	....	54.44
44	Minnesota 6	19	....	....	....	54.43
45	Schoenen	16	....	....	....	54.03
46	Siberian	22	....	....	....	53.84
47	Wayne	7	34.3	50.7	50.6	53.68
48	Silver	6	....	....	....	53.29
49	Garton 5	7	....	....	....	53.06
50	Sixty Day (Selected)	5	....	....	....	52.96
51	Naesgaard	6	....	....	....	52.76
52	President	8	....	....	....	52.59
53	White Russian	6	....	....	....	52.45
54	Lincoln	18	....	....	....	52.08
55	Early Champion	10	....	....	....	51.89
56	Danish White	16	....	....	....	51.79
57	Illinois 105	4	21.1	57.6	50.5	51.23
58	Golden Silvermine	4	36.1	42.9	47.9	50.39
59	Garton Victor	4	....	....	....	50.10
60	Patterson	3	34.4	44.6	49.0	49.46
61	Keystone	3	34.3	50.7	42.8	49.38
62	Mammoth Cluster	6	....	....	....	48.91
63	Crown	1	....	....	....	47.16
64	Great Avalanche	5	....	....	....	45.76
65	Golden Rain	3	....	....	....	42.45
66	Black Tartarian	7	....	....	....	41.98
67	Iowa D 69	1	....	....	....	40.88
68	Victory (Riley)	1	....	....	....	38.94
69	Iowa D 102	1	....	....	....	37.07

ALHAMBRA FIELD: Yields of Varieties of Oats
(No yields were obtained in 1936 because the crop drowned out in the early spring)

Rank	Variety	Number years grown	Bushel yields secured in 1933	1934	1935	Average comparable yield(bu.)
1	Brunker	5	24.3	38.8	19.3	42.67
2	Columbia	5	15.9	34.0	18.1	40.19
3	Burt (Nebr. 293)	6	16.1	36.2	22.0	37.90
4	Ill. 137	4	13.0	30.0	19.3	36.17
5	Ill. 140	4	14.9	28.6	16.7	35.64
6	Franklin	3	10.4	29.6	13.2	35.28
7	Iowar	8	....	....	....	33.97
8	Burt	8	....	....	....	33.55
9	Gopher	5	....	....	....	33.24
10	Albion (Iowa 103)	12	....	....	....	31.53
11	Minota	4	....	....	....	31.48
12	Kherson (Sixty Day)	17	8.2	22.4	16.2	31.04
13	Iogold	4	....	....	....	30.88
14	Silvermine	13	....	....	....	29.89
15	Big Four	12	....	....	....	29.59
16	Nova	4	....	....	....	27.71
17	Kanota	7	....	....	....	26.04
18	Fowld Hull-less	5	4.3	12.5	8.6	23.34
	Average		13.4	29.0	16.7	32.78

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Director, Extension Service in Agriculture
and Home Economics, University of Illinois

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Results of Oat Variety Tests on Agronomy Crop Experiment Fields Summarized to Include 1937

by
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W. L. Burlison

Department of Agronomy, University of Illinois
College of Agriculture, Agricultural Experiment Station
Extension Service in Agriculture and Home Economics
Urbana, Illinois
February, 1938

RESULTS OF OAT VARIETY TESTS

Oat yields in 1937 were good in both yield and quality considering late seeding. Due to frequent rains, the plots at DeKalb and Alhambra were not seeded until May. At Urbana, however, the crop was put in during the last week of March. The season was favorable for early-maturing varieties, as usual. Altho the rust epidemic was particularly severe on wheat, it caused little injury to the oats in the variety tests.

Best Yielding Varieties

The highest yielding varieties at DeKalb, taking into account only those that have been in the tests for three years or longer, are Iowar, Fort, Columbia, Silvermine 6-403, Albion and Gopher. Of these, the first two and the last two are varieties that have been developed as selections from Kherson.

At Urbana the leading varieties that have been grown for a minimum of six years are Columbia, Fort, Gopher, Brunker, Burt (Nebr. 517) and Kanota, all early varieties.

The oats ranking at the top on the Alhambra field are Brunker, Columbia, Burt (C.I. 293), Victory, Albion (Iowa 103) and Iowar. These are all early varieties except Victory which is mid-season.

Origin and Description of Leading Varieties

Albion - Product of a single plant selected from Kherson by Iowa Station in 1906. An early oat; grain small, white; panicle open; straw short and medium fine.

Brunker - Originated as a pure line from Burt at the Akron Field Station, Akron, Colorado, of the U. S. Department of Agriculture in 1919. Brunker was first distributed to farmers in 1929. It is a very early red oat,

maturing even earlier than Fulghum. The straw is short and slender with a reddish tinge; panicles small and equilateral, with short spreading branches. Variety appears to be capable of coming thru hot, dry periods of summer better than other oats and has some resistance to smut. Its greatest fault is a weak straw which results in severe lodging under some conditions.

Burt (Nebr. 517) - Isolated from the variable Burt oat by the Nebraska Station in 1920. This variety is very early maturing; straw short; panicle spreading; grains grayish tan in color. Burt (Nebr. 517) is only moderately rust resistant.

Burt (C.I. 293) - Selection made from Red Rustproof about 1878 by a man named Burt who is reported to have lived at the time in Greene county, Alabama. A very early oat; grain reddish brown, characteristically flattened; panicle open; straw short and fine; variety as generally grown is made up of a number of strains which give it a non-uniform appearance.

Columbia - Originated as an "off type" plant selection from Fulghum by the Missouri Station in 1920. Columbia is early maturing resembling Burt, the taller and more uniform. Grain is gray with light veins.

Fort - Developed as a pure line selection from Kherson by the Illinois Station. Straw is taller and more resistant to lodging and slightly later maturing than Kherson. Grain white; panicle spreading.

Gopher - Pure line selection from Kherson by the Minnesota Station in 1917. An oat similar to Albion (Iowa 103) tho not so early; grain white, slightly plumper than Albion; panicle open; straw short and stiff.

Iowar - A single plant selection from Kherson by the Iowa Station in 1910. Slightly later than Kherson; grain small, usually awned; straw somewhat taller and stiffer than Kherson.

Kanota - A strain of Fulghum discovered by the Kansas Station to posses superior yielding ability and unusual earliness. Produces its best yields when sown early; grain brownish red; panicle open; straw short, stiffer and somewhat coarser than that of Kherson.

Silvermine 6-403 - Selection from the variety Silvermine by the Illinois Station. Maturity is mid-season; panicle open; grain plump and white; straw tall and moderately stiff; slightly higher yielding than the original variety.

Victory - Developed at the Plant Breeding Station, Svalof, Sweden, and introduced into this country in 1908. A mid-season variety; grain white and plump; panicles open, rather dense; straw tall, fairly stiff.

Method of Calculating Yields

In obtaining the comparable average yields of the different varieties the average yield of all the varieties grown in any one year was used as the standard or check. The percentage rating of each variety was calculated using the average yield of all varieties, grown the same years, as 100 percent. This percentage rating was then multiplied by the average yield of all varieties for all years over which the tests were conducted. The resultant product was considered to be the comparable average yield.

The yield of hull-less oats has been calculated on the basis of 22.4 pounds to the bushel. This figure is based on the assumption that the regular varieties carry 30 percent of hull. This allowance for hull is, perhaps, somewhat high since determinations show that the percentage of hull is more frequently under 30 than over. Then, too, since some of the kernels of hull-less oats retain their hull, this method of calculation is favorable to the good showing of the hull-less varieties.

ALHAMBRA FIELD: Yield of Varieties of Oats

(Southwestern Illinois)

Rank	Variety	Number years grown	Bushel yields secured in - 1934	1935*	1937	Ave. comp. yield
						bu.
1	Brunker	6	38.8	19.3	20.8	41.8
2	Columbia	6	34.0	18.1	15.7	38.5
3	Burt (C.I.293)	7	36.2	22.0	7.0	35.5
4	Victory	4	...	...	...	35.3
5	Albion (Iowa 103)	12	...	...	...	34.7
6	Iowar	8	...	...	...	34.4
7	Great American	5	...	...	...	34.1
8	Burt	8	...	...	...	33.7
8	Siberian	4	...	...	...	33.7
10	Gopher	5	...	...	...	33.5
11	Big Four	12	...	...	...	32.8
11	Fort	5	28.6	16.7	16.4	32.8
13	Kherson (Sixty Day)	18	22.4	16.2	14.1	32.7
14	Iogold	4	...	...	...	32.6
15	Illinois 137	5	30.0	19.3	13.4	32.5
15	Silvermine	13	...	...	...	32.5
17	Wisconsin Wonder	4	...	...	...	30.9
17	Bryant Silver Plume	4	...	...	...	30.9
19	Kanota	7	...	...	...	30.8
20	Illinois 30-2088	1	...	...	12.5	30.6
21	Richland	4	...	...	...	30.2
22	White Bonanza	4	...	...	...	29.2
23	Minota	4	...	...	...	28.9
24	Nova	4	...	...	...	27.7
25	President	3	...	...	...	27.5
26	Texas Red	4	...	...	...	27.2
27	Franklin	4	...	...	...	25.7
28	Fowld Hull-less	5	...	...	...	20.3
29	Southern Black	1	...	...	...	19.3

* No yields were obtained in 1936 because the crop drowned out in the early spring.

DE KALB FIELD: Yields of Varieties of Oats

Rank	Variety	Number years grown	Bushel yields secured in - 1934	1935	1936	1937	Average comparable yield (bu.)
1	Illinois 30-2088	1	...	...	...	51.9	72.3
2	Iowar	11	...	...	...	...	70.2
3	Fort	3	...	66.5	57.5	57.9	69.7
4	Columbia	6	8.3	61.4	78.6	49.6	69.5
5	Silvermine 6-403	13	...	...	...	...	69.5
6	Albion (Iowa 103)	15	...	...	...	...	67.7
7	Gopher	6	...	...	76.1	40.6	67.1
8	Richland (Iowa 105)	14	...	...	...	...	66.8
9	Wayne	5	18.0	54.8	70.8	...	66.0
10	Kanota	8	...	...	...	...	65.6
11	Fowld Hull-less	6	14.4	43.4	72.1	36.4	65.0
12	Silvermine	18	...	...	...	...	64.9
13	Iogren	9	...	...	...	...	64.8
13	Great American	7	...	...	...	...	64.8
13	Iogold	4	...	...	...	...	64.8
16	Scottish Chief	5	...	...	...	...	64.6
17	Minota	4	...	...	...	...	64.5
18	Anthony	3	...	...	...	...	64.4
18	Burt (C.I. 293)	6	12.2	55.5	...	...	64.4
20	Sixty Day 13-304	5	...	...	...	...	63.8
21	Hvitling	4	...	...	...	...	63.7
22	Wisconsin Wonder	5	...	...	...	...	63.6
23	State Pride (Wis. 7)	11	...	...	...	...	63.1
23	Early Champion	4	...	...	...	...	63.1

25	Golden Silvermine	7	18.9	50.0	70.9	...	62.7
27	Bryant Silver Plume	5	...	...	...	...	62.6
27	President	5	...	...	...	...	62.6
29	Kherson (Sixty Day)	25	11.8	68.6	72.0	55.9	62.5
30	Big Four	14	...	...	...	...	62.4
31	Irish Victor	8	...	...	...	...	61.9
32	Texas Red	5	...	...	...	...	61.7
33	White Bonanza	7	...	...	...	...	61.5
33	Mammoth Cluster	5	...	...	...	...	61.5
33	Iowa 444	2	...	...	53.5	53.1	61.5
36	Schoenen	11	...	...	...	...	61.4
36	Danish White	8	...	...	...	...	61.4
38	Minnesota 6	13	...	...	...	...	61.2
38	American Banner	10	...	...	...	...	61.2
38	Victory	4	...	...	...	...	61.2
41	Lincoln	8	...	...	...	...	60.4
42	Franklin	4	13.3	48.4	...	...	60.3
43	Cornellian	5	...	...	...	...	59.5
44	Swedish Select	17	...	...	...	...	59.3
45	Siberian	8	...	...	...	...	58.0
46	Illinois 137	6	7.8	50.4	61.0	49.9	57.8
47	Burt	5	...	...	...	...	57.5
48	Victor (Riley)	2	...	...	...	...	57.4
49	Garton Victor	3	...	...	...	...	56.3
50	Black Tartarian	5	...	...	...	...	53.9
51	Keystone	3	...	59.1	50.1	29.3	53.1
52	White Russian	4	...	...	...	...	51.6
53	Garton 5	5	...	...	...	...	51.5
54	Patterson	3	...	52.8	46.6	31.8	50.3
55	Colorado 37	1	...	...	...	...	47.0
56	Markton	1	...	...	...	...	43.2

URBANA FIELD: Yield of Varieties of Oats

Rank	Variety	Number years grown	Bushel yields secured in - 1934	1935	1936	1937	Average comparable yield (bu.)
1	Columbia	7	29.0	68.3	70.0	77.7	66.3
2	Illinois 30-2088	2	...	...	67.1	80.4	63.1
3	Fort	7	27.0	73.3	60.3	76.5	62.7
4	Gopher	12	31.0	57.7	...	78.9	61.9
5	Brunker	8	17.5	70.5	65.4	77.8	61.3
6	Burt (Nebr. 517)	6	26.4	70.7	64.1	74.0	61.2
7	Kanota	9	...	...	...	...	61.1
8	Burt (C.I. 293)	8	28.3	60.1	60.1	80.6	60.8
9	Mixture of Early Oats	3	...	...	...	...	60.7
9	Albion (Iowa 103)	15	...	...	...	...	60.7
11	Richland (Iowa 105)	16	...	...	...	...	60.1
11	Markton	5	...	...	...	...	60.1
13	Iogold	5	...	...	...	...	59.7
14	Minota	7	...	...	...	...	59.6
14	Franklin	5	26.3	53.7	61.6	...	59.6
16	Nebraska 21	6	...	...	...	...	59.4
17	State Pride (Wis. 7)	10	...	...	...	...	59.3
18	Burt	11	...	...	...	...	59.2
19	Kherson (Sixty Day)	32	19.8	74.0	58.0	78.3	59.1
19	Iowar	10	...	...	...	...	59.1
21	Big Four	16	...	...	...	...	59.0
22	Kherson 13-304	6	...	...	...	...	58.6
22	Silvermine 6-403	5	...	...	...	...	58.6
24	Cornellian	8	...	...	...	...	58.5

25	Iogren	8	...	...	...	...	58.0
26	Anthony	5	...	...	...	...	57.8
27	Great American	13	...	...	...	...	57.7
28	Texas Red	14	...	...	...	...	57.0
29	Silvermine	23	...	...	...	...	56.9
30	White Bonanza	21	...	...	...	...	56.8
31	Irish Victor	22	...	...	...	...	56.4
32	Bryant Silver Plume	10	...	...	...	...	56.3
33	Iowa 444	1	...	...	...	74.1	56.2
34	Miami	6	...	...	...	...	56.1
35	Illinois 137	7	19.1	61.2	57.4	70.8	56.0
36	Nova	8	...	...	...	...	55.8
37	Schoenen	17	...	...	...	...	55.7
37	Minnesota 6	19	...	...	...	...	55.7
39	Mixture of Late Oats	2	...	...	...	...	55.6
39	Wisconsin Wonder	10	...	...	...	...	55.6
39	Wayne	7	34.3	41.6	50.6	...	55.6
42	American Banner	24	...	...	...	...	54.9
43	Swedish Select	14	...	...	...	...	54.4
43	Victory	10	...	...	...	...	54.4
45	Siberian	24	...	...	...	...	54.0
45	Danish White	18	...	...	...	...	54.0
47	Garton 5	7	...	...	...	...	53.8
48	President	8	...	...	...	...	53.7
49	Scottish Chief	6	...	...	...	...	53.4
50	Lincoln	20	...	...	...	...	52.5

URBANA FIELD: Yields of Varieties of Oats (Continued)

Rank	Variety	Number years grown	Bushel yields secured in - 1934	1935	1936	1937	Average comparable yield (bu.)
50	Keystone	4	34.3	50.7	42.8	73.9	52.5
52	Golden Silvermine	5	36.1	42.9	47.9	75.8	52.3
53	Illinois 105	6	21.1	57.6	50.5	68.6	51.9
54	Patterson	4	34.4	44.6	49.0	71.4	51.8
54	Garton Victor	4	...	...	...	...	51.8
56	Silver	6	...	...	...	...	51.3
57	Early Champion	10	...	...	...	...	51.2
58	White Russian	6	...	...	...	...	50.7
59	Naesgaard	6	...	...	...	...	50.6
60	Kherson (Selected)	4	...	...	...	...	50.5
61	Crown	1	...	...	...	...	49.6
62	Mammoth Cluster	6	...	...	...	...	49.5
63	Golden Rain	2	...	...	...	...	47.7
64	Fowld Hull-less	9	15.7	63.2	64.2	68.0	47.6
65	Great Avalanche	5	...	...	...	...	47.5
66	Black Tartarian	9	...	...	...	...	42.8
67	Illinois Hull-less	5	...	...	...	...	38.2

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Department of Agronomy
Extension Service in Agriculture and Home Economics
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Urbana, Illinois

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ILLINOIS OAT VARIETY TRIALS, 1960

C. M. Brown

Oats produced a state average yield of 51 bushels an acre in 1960. This is an increase of 11 bushels an acre above the relatively poor crop in 1959, when a virus disease called yellow dwarf caused a considerable amount of damage. The 1960 oat yields were good in spite of a very late planting season. The cool, rainy weather that delayed oat seeding extended well into early summer and thus favored the late-planted oats. Oat diseases caused very little observed damage in 1960. Yields, test weights, and grain quality were lowered in some areas where storms caused lodging and delayed harvest.

The four leading oat varieties and the percentage of acreage of each in Illinois for 1960 were as follows: Newton, 39; Clintland, 25; Nemaha, 12; and Minhafer, 9. The only varieties to show a significant increase in acreage over 1959 were Newton and Minhafer, while Clintland, Clinton, and Nemaha declined.

It is interesting to note that Clintland dropped from 45 percent in 1959 to 25 percent in 1960, while Newton increased from 19 percent to 39 percent. The severe attack of yellow dwarf on Clintland in 1959 was mostly responsible for its large decrease in acreage in 1960. Most of this acreage was replaced by Newton, the only recommended variety that showed a considerable degree of tolerance to yellow dwarf attack in 1959.

For a detailed description of most varieties included in this report, see Circular 788, which is available upon request from the University of Illinois College of Agriculture, Urbana, Illinois. Following are brief descriptions of several of the newer varieties that do not appear in Circular 788:

Clintland 60, as the name implies, is an improved form of the highly popular Clintland. The "Hajira" stem rust resistance was added to Clintland by a backcross program. Clintland 60 appears similar to Clintland in all observed characteristics except that it is resistant to Race 7 of stem rust, to which Clintland is susceptible. Like Clintland, Clintland 60 is resistant to the prevalent races of leaf rust. However, several races of leaf rust that will attack Clintland 60 and Clintland have appeared in trace amounts in recent years. Farmers who now prefer Clintland should seriously consider replacing their Clintland acreage with Clintland 60, because it is resistant to Race 7 of stem rust and in all other characteristics is apparently as good as Clintland.

Goodfield is from the cross Clintland x (Garry x Hawkeye - Victoria). It has excellent resistance to all of the prevalent races of leaf and stem rust. It is also the only adapted variety that has some resistance to the new races of leaf rust that have occurred in trace amounts in recent years. Goodfield has been more resistant to lodging than any other variety tested in Illinois. Because of its stiff, short straw, it should be especially well adapted to the highly fertile soils where lodging is a problem. Goodfield has a very high test weight, but the

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ILLINOIS CORN MARKET REPORT, 1960

by, Dean

Corn produced a state average yield o It bushels an acre in 1960. This is a crease of 11 bushels an acre above the previously good corn, in 1959, when record was lling Corn ceived a record-high Federal Loan rate on ncy. The good, early elds were ing of a very e planting season. The cool, rainy ther delayed ear ripening until late enough that the ing summer and then ened the ter- nal corn. Oak diseases caused ly the ted damage in 1960. ields ere variable, and ain quality e lowest in any ere iborn counties lodging and ng Ear ot.

The four ning out ariables nd the ercentage of acres in ll or For 1960 were as follows: Iverton, ; Clintland, 9 ; Dewey, ; and Ilsmouth, 5. The only variables to show a significant crease in acreage over 1959 were Iverton and Ilsmouth, while Clintland, Clinton, and Peoria decreased.

It is interesting to note that Clintland dropped from in 1959 to in per- cent in 1960, while Iverton increased from to percent. The acreage ata of ying on Clintland in 1959 was mainly responsible for the ly decrease in acreage in 1960. ost of this acreage was returned by Iverton, the only ssembled ariety that showed a significant degree of tolerance to ll ot .

For a ded day riation of most ariety s ld in Ilsmouth, Clintland, Peoria, Urbana, Iverton. Following are rief descrip s of he ariety ot ce ble in 1960:

[illegible] is ew corn , is an improved ype of ig ellow dent, which is available upon request from the University of Illinois College of Agriculture, Urbana, Illinois. Following are rief descrip s of he ariety ot ce ble in Clintland, 1960:

[illegible] is rom the ussex Clinton x (Geary x Ne ya - Victor). It is ssentially ostcrop o all of the arious ect of ard and ne . It also he ery educed ender han ose ariet- ance o the ise of ost ood hat have ccurred in roor seasons. In ast ears, other ariet s ested in Clintland. Because of he ild, wet hers, it should be ccasionally ull ulched o the ighly esis ance ecies oosing is a oblem. Goodland has a ery igh est eight, ut the ield ay be ccasionally ull ulched o the ighly esis ance ecies

hull color is a dull yellow that tends to become light brownish at the base. Goodfield is not expected to produce high yields when grown on soils of low fertility.

Macon is a selection from the cross Columbia x Marion that was made in Missouri. It was in all tests in Illinois for the first time in 1960. Macon matures early and has high test weight, but is quite susceptible to lodging. Yields have been comparable to those of Mo. 0-205 in some tests, but lower in others. This variety is resistant to Race 7 of stem rust, but is susceptible to Race 8 and is moderately resistant to crown rust. Additional tests will be required to determine whether Macon is adapted in Illinois.

Nehawka is a selection out of the older variety of Cherokee that was made in Nebraska. It was in all of the tests in Illinois for the first time in 1959. It is resistant to Race 7 of stem rust, but is susceptible to Race 8 of stem rust and is moderately susceptible to leaf rust. Its maturity, straw strength, and test weight are about the same as those of Nemaha. Additional tests will be required to determine whether this variety is adapted to Illinois.

Portage is a selection from the cross Ajax x Hawkeye - Victoria that was developed by the Wisconsin Station. It was in all tests in Illinois for the first time in 1960. Portage, like the variety Garry, is tall and late maturing but produces grain of higher test weight than Garry. Its straw strength is not equal to that of Garry, but is superior to Branch. Portage is moderately resistant to prevalent races of leaf rust, resistant to Race 7 of stem rust, and susceptible to Race 8 of stem rust. Additional tests will be required to determine whether this late variety is adapted to northern Illinois.

Putnam 61, as the name implies, is an improved form of Putnam that was developed by the Indiana Station. Resistance to prevalent races of leaf and stem rust has been added to Putnam by backcrossing. Putnam 61 appears similar to Putnam in all observed characteristics except for rust reaction. Putnam 61, like Putnam, matures very early, has a high test weight, and is tolerant to yellow dwarf. Putnam 61 has not been tested extensively for yield in Illinois, but the data for Putnam in this report give a reliable guide to its expected yield performance. Rust caused no observed damage to Putnam in any of the tests reported here. Putnam 61, like Putnam, is not expected to be extremely high yielding in Illinois, but it is the only very early variety with both resistance to prevalent races of leaf and stem rust and yellow dwarf tolerance that is well adapted to central and southern Illinois. It will be available to seed producers in Illinois for the first time in 1961.

Shield, from the cross [Roxton x (Victoria x Hajira - Banner)] x [Ajax x (Victoria x Hajira - Banner)], originated in Canada. Its yields have been very good in northern Illinois. The variety is early maturing, with straw that stands as well as that of Andrew or Mo. 0-205, but not so well as that of Clintland, Minhafer, or Newton. Its height is approximately the same as that of Clintland. Shield is resistant to Races 7 and 8 of stem rust but is moderately susceptible to leaf rust. It has been placed on the recommended list for 1961.

Tonka, a very early maturing variety from Oklahoma, was in all Illinois tests for the first time in 1960. It is susceptible to many of the prevalent races of leaf and stem rust, but its early maturity often allows it to escape severe damage. Tonka has shown some tolerance to yellow dwarf. It produces grain with very high test weight. Additional tests will be required to determine whether it is adapted to Illinois.

Oat variety tests were grown in small replicated plots at five locations in Illinois in 1960: Brownstown, Fayette County; Urbana, Champaign County; Hartsburg, Logan County; Oneida, Knox County; and Shabbona, DeKalb County. In addition to these small plot tests, varieties were grown in replicated combine plots of approximately 1/50 acre each at Brownstown, Fayette County; Urbana, Champaign County; and Shabbona, DeKalb County. All tests were planted at the rate of three bushels an acre.

A summary of yields and test weights for the drill plots is given in Table 1, and that for small plots in Table 2. In examining the yield tables, please remember that small differences in yield do not necessarily indicate actual superiority and that results of tests conducted over a period of years are a more reliable guide to performance of a variety than are results of fewer years. For this reason three-year averages are given for varieties that have been tested for that length of time.

Duncan's Multiple Range Test was used to compare yields of varieties within maturity groups in 1960. Yields of varieties in the same maturity group and test can be compared by observing the letters inserted after each yield figure. Varieties that have one or more letters in common did not differ significantly in yield at the 5 percent level, whereas those that have no letter in common did differ significantly at this level. No attempt was made to compare varieties in different maturity groups. Also, no statistical analysis was made to compare the three-year averages of the different varieties.

Cooperative Extension Work in Agriculture and Home Economics
University of Illinois College of Agriculture and the United States
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Table 1.--1960 Spring Oat Drill Plot Yields (bu./A.), Test Weights (lb./bu.) and Three-Year Averages for Yield

Variety	Shabbona DeKalb County Northern Illinois			Urbana Champaign County East-Central Illinois			Brownstown Fayette County South-Central Illinois		
	'60 [1]	3-yr. av. '58-'60	Test wt. '60	'60 [1]	3-yr. av. '58-'60	Test wt. '60	'60 [1]	3-yr. av. '58-'60	Test wt. '60
Early									
Andrew	59 g	72	33	80 ab	80	30	61 cd	59	33
Minhafer	65 cdef	81	34	78 ab	76	30	60 cd	58	33
Mo. 0-205	--	--	--	79 ab	78	32	74 a	67	33
Macon	71 b	--	34	76 ab	--	33	57 d	--	33
Nehawka	69 bcd	--	32	81 ab	--	29	60 cd	--	32
Nemaha	68 bcde	77	34	71 b	73	32	64 bcd	58	33
Putnam	70 bc	--	36	80 ab	73	32	62 cd	58	34
Shield	77 a	92	34	80 ab	80	31	72 ab	--	32
Tonka	64 defg	--	40	86 a	--	35	69 abc	--	36
Mid-Season									
Beedee	79 a	89	36	89 a	78	32	--	--	--
Burnett	70 b	83	34	83 ab	76	32	--	--	--
Clintland	60 c	80	30	62 d	66	29	69 a	60	34
Clintland 60	59 c	75	30	69 cd	--	30	65 a	--	33
Clinton	52 d	67	27	72 c	68	30	68 a	57	32
Goodfield	73 b	92	36	73 c	--	34	64 a	--	35
Newton	73 b	90	33	77 bc	78	33	68 a	69	33
Late									
Garry	78 a	92	31	81 a	77	29	--	--	--
Portage	77 a	--	35	81 a	--	31	--	--	--
Sauk	66 b	80	31	--	--	--	--	--	--

1/ Varieties in the same maturity group and same test that have one or more letters in common did not differ significantly in yield at the 5 percent level, whereas varieties that have no letter in common were significantly different at this level.

Table I.--Ohio Summary for 1920 Showing Area (Acres) and Value (Dollars) per Acre

County	Corn			Oats			Wheat			Hay			Potatoes		
	Area	Value per acre	Total value	Area	Value per acre	Total value	Area	Value per acre	Total value	Area	Value per acre	Total value	Area	Value per acre	Total value
	1920	1920	1920	1920	1920	1920	1920	1920	1920	1920	1920	1920	1920	1920	1920
	Acres	Dollars	Dollars	Acres	Dollars	Dollars	Acres	Dollars	Dollars	Acres	Dollars	Dollars	Acres	Dollars	Dollars
Adams	25,000	75	1,875,000	12,000	40	480,000	6,000	25	150,000	30,000	20	600,000	1,000	100	100,000
Allen	60,000	75	4,500,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Ashland	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Ashtabula	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Athens	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Auglaize	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Belmont	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Brown	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Butler	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Carroll	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Champaign	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Clark	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Clermont	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Clinton	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Columbiana	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Coshocton	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Crawford	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Cuyahoga	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Darke	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Defiance	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Delaware	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Erie	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Fairfield	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Fayette	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Franklin	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Fulton	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Gallia	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Geauga	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Greene	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Guernsey	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Hamilton	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Hancock	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Hardin	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Harrison	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Henry	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Highland	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Hocking	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Holmes	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Huron	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Jackson	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Jefferson	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Knox	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Lake	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Lawrence	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Licking	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Logan	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Lorain	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Lucas	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Madison	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Mahoning	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Marion	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Medina	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Meigs	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Mercer	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Miami	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Monroe	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Montgomery	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Morgan	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Morrow	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Muskingum	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Noble	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Ottawa	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Paulding	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Perry	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Pickaway	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Pike	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Portage	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Preble	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Putnam	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Richland	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Ross	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Sandusky	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Scioto	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Seneca	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Shelby	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Stark	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Summit	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Trumbull	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Tuscarawas	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Union	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Van Wert	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Vinton	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Warren	40,000	75	3,000,000	25,000	40	1,000,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Washington	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Wayne	30,000	75	2,250,000	20,000	40	800,000	10,000	25	250,000	40,000	20	800,000	1,000	100	100,000
Williams	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Wood	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000
Wyandot	50,000	75	3,750,000	30,000	40	1,200,000	15,000	25	375,000	40,000	20	800,000	1,000	100	100,000

Table 2.--1960 Spring Oat Small Plot Yields (bu./A.), Test Weights (lb./bu.) and Three-Year Averages for Yield

Variety	Shabbona DeKalb County Northern Illinois			Oneida Knox County West N.C. Ill.		Hartsburg Logan County Central Ill.		Urbana Champaign County East-Central Ill.			Brownstown Fayette County South-Central Ill.		
	'60 1/	3-yr. av. '58-'60	Test wt. '60	'60 1/	3-yr. av. '58-'60	'60 1/	3-yr. av. '58-'60	'60 1/	3-yr. av. '58-'60	Test wt. '60	'60 1/	2-yr. av. '59-'60	Test wt. '60
Early													
Andrew	71 cde	84	33	56 a	80	49 ab	44	89 ab	90	29	73 ab	68	31
Mahaska 2/	67 e	--	35	--	--	--	--	75 b	--	33	68 ab	60	32
Minhafer	82 bc	97	35	62 a	87	57 ab	50	75 b	81	31	71 ab	66	31
Mo. 0-205	76 bcde	91	35	59 a	88	64 a	54	79 ab	86	28	73 ab	66	33
Macon	81 bcd	87	37	42 a	75	54 ab	46	90 ab	83	31	73 ab	66	33
Nehawka	87 ab	91	33	42 a	--	55 ab	--	80 ab	82	29	59 ab	57	31
Nemaha	75 cde	78	34	52 a	67	52 ab	44	75 b	74	31	73 ab	63	31
Putnam	77 bcde	86	38	60 a	75	47 b	51	71 b	83	32	67 ab	57	34
Shield	93 a	110	37	59 a	83	58 ab	46	99 a	89	30	75 a	71	30
Tonka	70 de	--	40	54 a	--	56 ab	--	76 b	--	34	63 ab	66	37
Mid-Season													
Beedee	87 a	93	37	61 ab	76	62 ab	52	80 ab	78	32	63	64	34
Burnett	81 abc	92	36	58 abc	84	42 c	49	94 a	88	31	87	72	33
Clintland	65 def	83	33	45 abcd	76	41 c	38	72 b	70	29	69	61	31
Clintland 60	65 def	79	33	62 a	79	56 abc	46	77 ab	76	32	77	67	32
Clinton	49 g	69	29	53 abcd	73	50 abc	42	87 ab	77	29	61	57	31
Goldfield 2/	82 ab	94	34	--	--	--	--	86 ab	87	30	69	68	30
Goodfield	74 bcd	94	38	36 d	72	40 c	45	76 ab	73	35	62	56	33
Newton	70 de	94	36	56 abcd	84	64 a	53	71 b	86	31	74	74	33
Late													
Garry	93 ab	102	32	63 a	88	68 a	59	77 a	78	30	73	68	29
Portage	84 bc	99	36	54 a	86	57 a	53	92 a	86	32	62	62	31
Sauk	79 c	92	32	62 a	83	71 a	53	90 a	80	29	67	63	29
Simcoe	99 a	102	33	69 a	83	68 a	60	91 a	90	30	73	70	30

1/ Varieties in the same maturity group and same test that have one or more letters in common did not differ significantly in yield at the 5 percent level, whereas varieties that have no letter in common were significantly different at this level.

2/ Mahaska and Goldfield were developed by the McCurdy Seed Company, Freemont, Iowa.

Table 2.--1960 Spring Pre Shell Plow Yields (bu./A.) Zero Weights (lb./bu.)
and Three-Year Averages for Yield

Location	Checks			Harrowed			Brownscom		
	Berlin Township			Logan County			Champaign County		
	Yield 15.5%			Yield 15.5%			Yield 15.5%		
Variety	1960	3-yr. Ave.	Test Wt.	1960	3-yr. Ave.	Test Wt.	1960	3-yr. Ave.	Test Wt.
Early									
Jamaica 71	71 ee	81 ee	58	74 ee	84 ee	58	73 ee	82 ee	58
Midland 49	82 d	87 d	58	82 d	87 d	58	82 d	87 d	58
Midland 51	85 bcde	91 bcde	58	85 bcde	91 bcde	58	85 bcde	91 bcde	58
Mo. 0-205	81 fgh	87 fgh	58	81 fgh	87 fgh	58	81 fgh	87 fgh	58
Mason	83 bcd	91 bcd	58	83 bcd	91 bcd	58	83 bcd	91 bcd	58
Nebraska 54	81 fgh	87 fgh	58	81 fgh	87 fgh	58	81 fgh	87 fgh	58
Nemaha	81 fgh	87 fgh	58	81 fgh	87 fgh	58	81 fgh	87 fgh	58
Pioneer 309	84 bcd	90 bcd	58	84 bcd	90 bcd	58	84 bcd	90 bcd	58
Shelby 4H	82 efg	88 efg	58	82 efg	88 efg	58	82 efg	88 efg	58
Ohio 49	79 fgh	85 fgh	58	79 fgh	85 fgh	58	79 fgh	85 fgh	58
Mid-Season									
Beeche	81 efg	87 efg	58	81 efg	87 efg	58	81 efg	87 efg	58
Burnett	88 abc	94 abc	58	88 abc	94 abc	58	88 abc	94 abc	58
Crittfield 60	92 a	98 a	58	92 a	98 a	58	92 a	98 a	58
Clinton	89 ab	95 ab	58	89 ab	95 ab	58	89 ab	95 ab	58
Goodfield	87 abc	93 abc	58	87 abc	93 abc	58	87 abc	93 abc	58
Illini	87 abc	93 abc	58	87 abc	93 abc	58	87 abc	93 abc	58
Late									
Davis	88 ab	94 ab	58	88 ab	94 ab	58	88 ab	94 ab	58
Dorman	86 abc	92 abc	58	86 abc	92 abc	58	86 abc	92 abc	58
Hark	86 abc	92 abc	58	86 abc	92 abc	58	86 abc	92 abc	58
Steuben	85 bcd	91 bcd	58	85 bcd	91 bcd	58	85 bcd	91 bcd	58

1/ Varieties in the same maturity group and same test that have one or more letters in common did not differ significantly in yield at the 5 percent level, whereas varieties that have no letters in common do differ significantly.

2/ Varieties not included in 3-year average.